# BenchMark
## Control Valve Diagnostics ™



# Link MGR ™

*"I'm not a database expert, so I would like to push one button and combine valve diagnostic data from several repair vendors, our new valve supplier and several of our other plants."*

Ok. Maybe its not just one button, but we've made it almost that easy to share your **BenchMark Control Valve Diagnostics** data between multiple on-site test systems, multiple valve repair vendors, affiliated plants and new valve manufacturers. And for good measure, we've included powerful tools to help you manage your valve diagnostic data archive.

During maintenance outages, production facility personnel can use **Link MGR** to efficiently transfer comprehensive valve information to and from the valve service vendor(s) awarded the current repair contract(s). Copies of **BenchMark** databases, complete with valve configuration data, test histories, customized terminology and tag specific performance standards, are easily exchanged as single transfer files attached to e-mails or downloaded from web-sites. When the received transfer files are placed on the vendor's **BenchMark** systems, testing can begin without further clerical work or data entry. The quality and efficiency of the overall valve repair process is improved by timely exchanges of detailed information about the valves tested, repaired and overhauled.

Upon project completion, the repair vendor creates a similar **BenchMark** transfer file and e-mails it to the plant. Alternately, the vendor may post the transfer file on a secured portion of their web-site for plant personnel to download at their convenience.

After a review of the downloaded records, **Link MGR** uploads only the updated valve records to the plant's archive drive. **BenchMark Data MGR** then provides desktop access to trending, overlay, reporting and other valve record management tools to various engineering, maintenance, and reliability personnel throughout the plant.
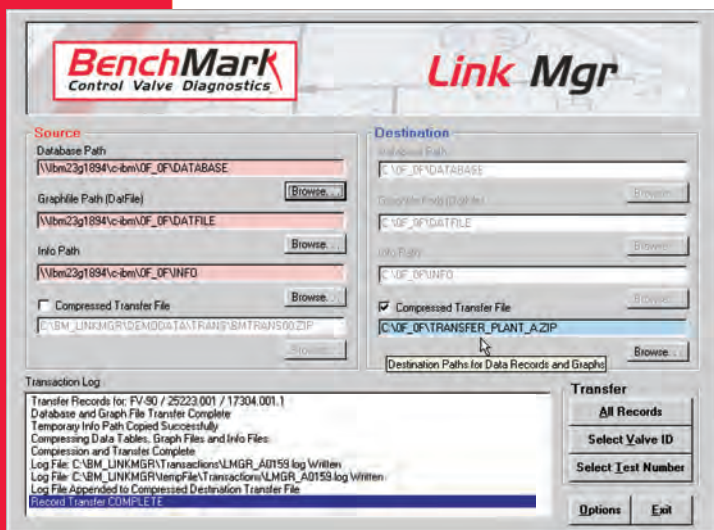


## Easily Manage:

**Plant - Vendor Data Exchange**

**Upload/Update/Consolidate Records**

**Valve Diagnostic Data Archive**

**Multiple Test Systems**

**Multiple Data Storage Locations**

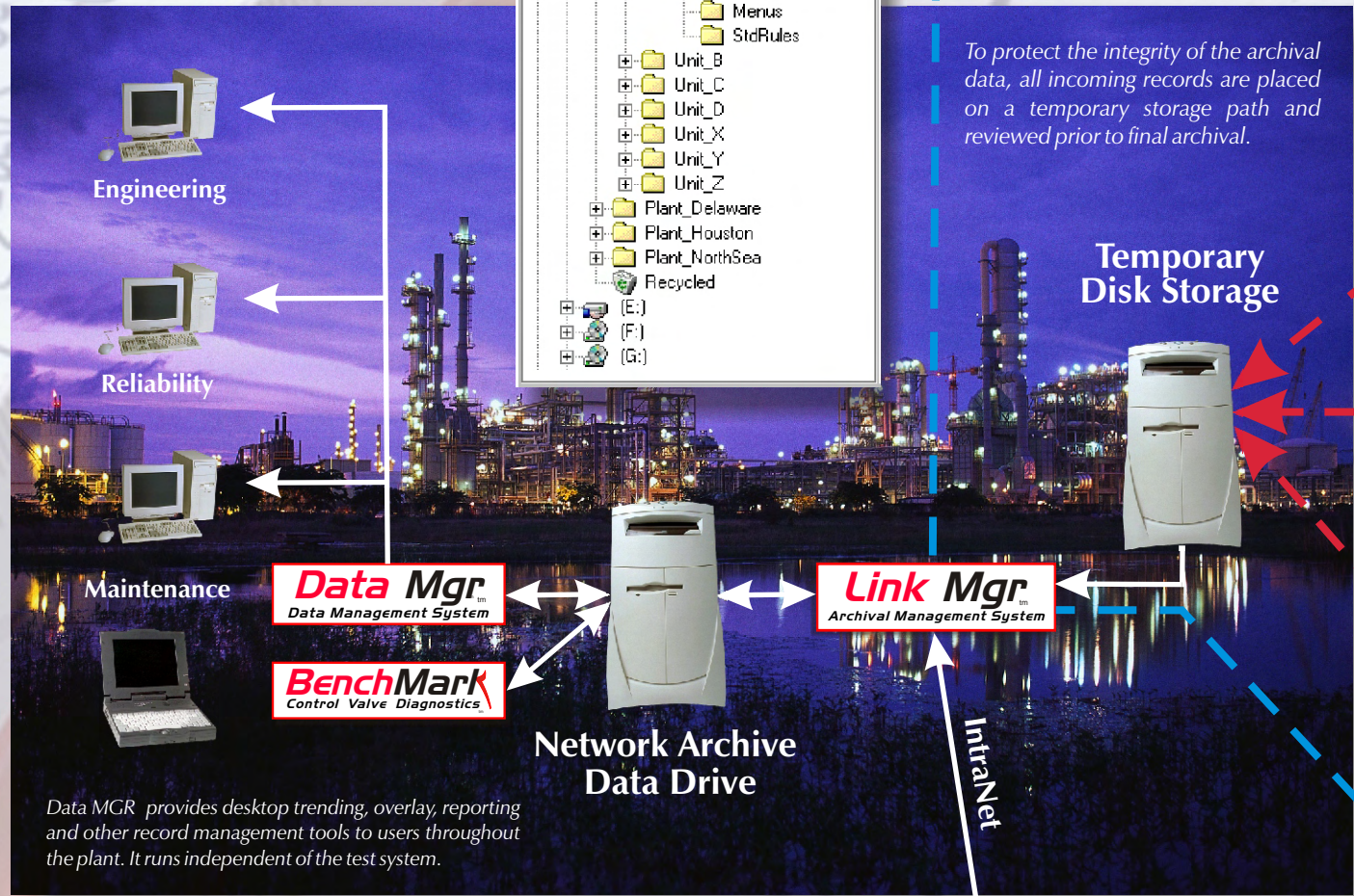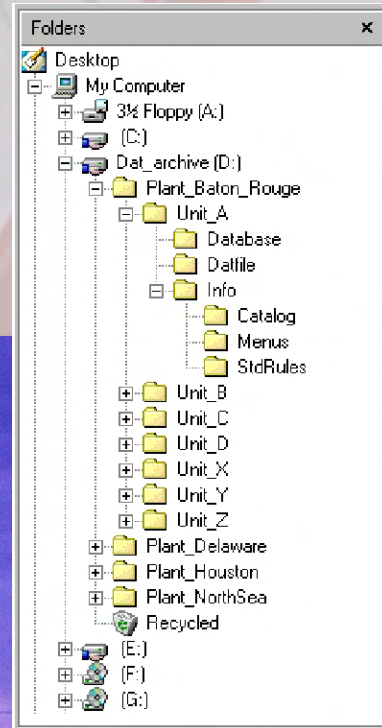**Record Extraction by Valve ID**

**Record Extraction by Test Info**

**New Valve Records**

## Black Diamond
### Engineering ™

# Information Flow Chart

**BenchMark** Control Valve Diagnostics™

**Data becomes information only when it is available in a useful form.**

The *Bench*Mark system provides all of the software tools needed to acquire and efficiently communicate valve performance information within the plant, between affiliates and to and from multiple repair vendors and valve manufacturers.

Folders
- Desktop
  - My Computer
    - 3½ Floppy (A:)
    - (C:)
    - Dat_archive (D:)
      - Plant_Baton_Rouge
        - Unit_A
          - Database
          - Datfile
          - Info
            - Catalog
            - Menus
            - StdRules
        - Unit_B
        - Unit_C
        - Unit_D
        - Unit_X
        - Unit_Y
        - Unit_Z
      - Plant_Delaware
      - Plant_Houston
      - Plant_NorthSea
      - Recycled
    - (E:)
    - (F:)
    - (G:)

**Engineering**

**Reliability**

**Maintenance**

**Data** *Mgr.* Data Management System

**BenchMark** Control Valve Diagnostics™

**Network Archive Data Drive**

*Data MGR provides desktop trending, overlay, reporting and other record management tools to users throughout the plant. It runs independent of the test system.*

**Link** *Mgr.* Archival Management System

**IntraNet**

To protect the integrity of the archival data, all incoming records are placed on a temporary storage path and reviewed prior to final archival.
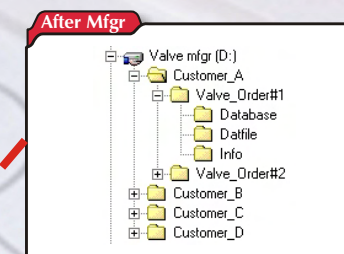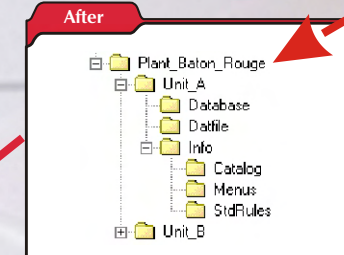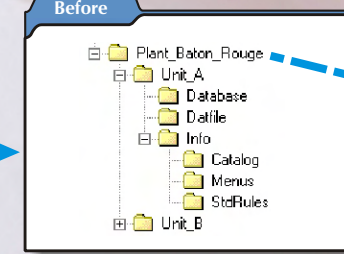
**Temporary Disk Storage**

*Bench*Mark *Link* MGR provides all of the data extraction, uploading and compression tools needed to efficiently transfer **complete** packages of valve information between plant and vendor with no clerical work and a minimum of difficulty. No database expertise or special training is required.

Records are only created once. Subsequent record sharing, testing and data trending are all accomplished digitally. The plant's valve nomenclature and performance standards established for each valve are maintained throughout the valve repair process.

**Affiliated Plant**

**BenchMark** Control Valve Diagnostics™

By e-mail

Valve configuration, test histories, performance standards and nomenclature are all transferred as a single compressed file. The method of transfer is totally at the discretion of the plant.

**Compressed Windows Paths for Units "A" and "B"**

Before
- Plant_Baton_Rouge
  - Unit_A
    - Database
    - Datfile
    - Info
      - Catalog
      - Menus
      - StdRules
  - Unit_B

After
- Plant_Baton_Rouge
  - Unit_A
    - Database
    - Datfile
    - Info
      - Catalog
      - Menus
      - StdRules
  - Unit_B

By e-mail

After Mfgr
- Valve mfgr (D:)
  - Customer_A
    - Valve_Order#1
      - Database
      - Datfile
      - Info
    - Valve_Order#2
  - Customer_B
  - Customer_C
  - Customer_D

**Web site**

Download

Records are extracted from the manufacturer's large database and placed into a single compressed file for transfer.

**Link** *Mgr.* Archival Management System

**Web site**

Download

After
- Plant_Baton_Rouge
  - Unit_X
    - Database
    - Datfile
    - Info
      - Catalog
      - Menus
      - StdRules
  - Unit_Y
  - Unit_Z

Before
- Plant_Baton_Rouge
  - Unit_X
    - Database
    - Datfile
    - Info
      - Catalog
      - Menus
      - StdRules
  - Unit_Y
  - Unit_Z

By e-mail
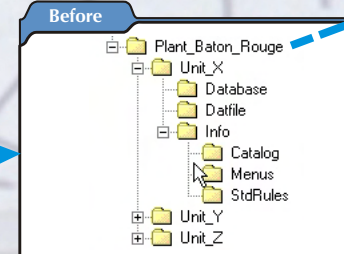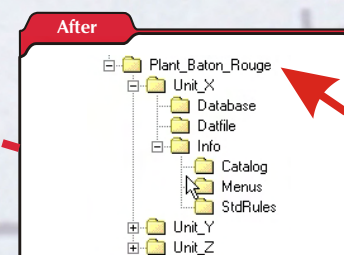
**Compressed Windows Paths for Units "X", "Y" and "Z"**

**BenchMark** Control Valve Diagnostics™

Folders
- Desktop
  - My Computer
    - 3½ Floppy (A:)
    - (C:)
    - Vendor_a (D:)
      - Cust_01_BR01
        - Plant_Baton_Rouge
          - Unit_A
            - Database
            - Datfile
            - Info
              - Catalog
              - Menus
              - StdRules
          - Unit_B
      - Cust_02_NO01
      - Cust_03_NO02
      - Cust_04_BR02
    - Recycled
    - (E:)
    - (F:)
    - (G:)

**Repair Company "A"**

*Vendor "A" receives valve data and test histories for Unit "A" and Unit "B" attached to an e-mail from the plant. Once the compressed path is placed on the Bench*Mark *system, testing can begin immediately with no clerical work. Upon completion, the same path, now containing the updated histories, is compressed and returned to the plant.*

**Valve Manufacturer**

**BenchMark** Control Valve Diagnostics™

*This valve manufacturer uses Bench*Mark *to document the quality of the new valves ordered by the plant. Configuration and post assembly test data are extracted from the manufacturer's database by Bench*Mark *Link* MGR, compressed to a single file and placed on the manufacturer's web site to be uploaded at the plant's convenience.

**BenchMark** Control Valve Diagnostics™

**Link** *Mgr.* Archival Management System

**Repair Company "B"**

*Vendor "B" receives valve data and test histories for Units "X", "Y" and "Z" by a single e-mail from the plant. Link MGR is used to manage the plant's data within this vendor's larger database and among multiple Bench*Mark *systems. On completion of the repair contract, Link MGR is used to prepare the transfer file returned to the plant.*
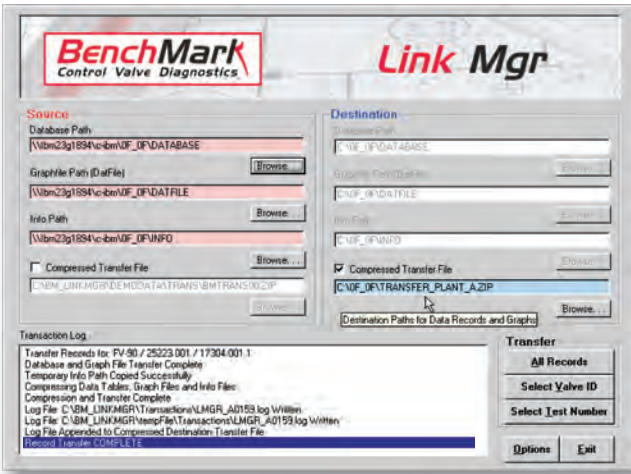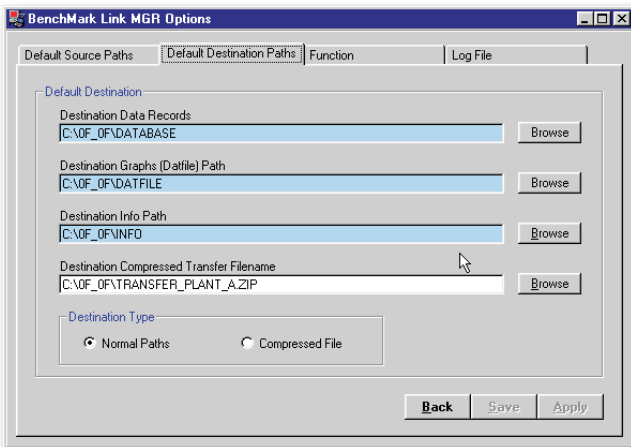
Intuitive Interface Defines Source and Destination for the Transfer
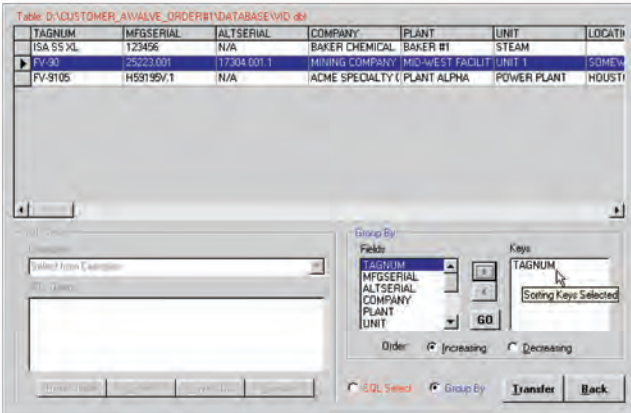

All records for selected valves are transferred by simple command.
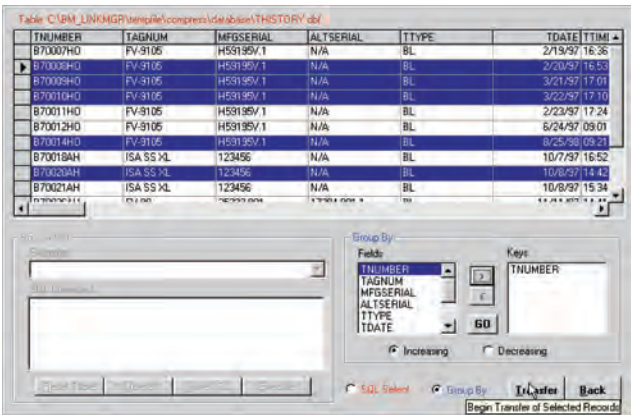

Records can be transferred by selecting the desired tests.


Application is easy to configure and use.

# BenchMark
## Control Valve Diagnostics™

# Link MGR™

**Bench**Mark **Link** **MGR** provides a comprehensive set of straight-forward, intuitive tools for the management and archiving of **Bench**Mark test data. With this application, you can quickly and easily update or consolidate test records from multiple **Bench**Mark test systems, several repair vendors or from various network storage locations. It is a simple matter to transfer: all of the records for a particular plant, unit or customer; all records for selected valves; or just a few specific tests. Database management is complete and automatic. For convenience, data files can be transferred directly to a compressed format for transmittal via the internet or e-mail.

A single **Bench**Mark **Link** **MGR** command automatically uploads and appends all of the <u>new</u> tests from a **Bench**Mark test system to your network archive storage location. It doesn't get any easier than that!

Detailed transaction logs are created, stored locally and placed in the destination path or appended to the compressed transfer file. All database operations are automatically processed; no operator intervention or database training is required.

The application is easily configured to allow operation by personnel with a wide range of computer skills.

## System Requirements

Windows XP   or Windows 7

500 MB RAM Minimum

2 MB Available Hard Disk Space

## For More Information

**info@blkdmdeng.com**

**www.blkdmdeng.com**

## Black Diamond
### Engineering™

14884 S. Heritagecrest Way
Suite B
Bluffdale, Utah USA 84065

(801) 256 - 0202 phone
(801) 256 - 0217 fax